

Scientific Note

**AGGREGATIONS OF *THAUMATOMYIA GLABRA*  
(MEIGEN) (DIPTERA: CHLOROPIDAE) ON  
*WISTERIA* FLOWERS (FABACEAE)**

During April, 1995, aggregations of *Thaumatomyia glabra* (Meigen) were noticed on the flower clusters of *Wisteria sinensis* (Sims) Sweet, at El Dorado Hills, in the Sierra Nevada foothills of California. Over a two week period, individuals were observed to each occupy an individual blossom, and flies were spread over all available flower clusters. All sampled flies were males. On each sequentially opening inflorescence, many blossoms, often adjacent, were occupied. The flies sat motionless, usually on one side of the front portion of the white banner of the blossom, but occasionally, if disturbed, they moved to the lavender keel of the blossom. Movement of flies between blossoms was not observed, nor were encounters among flies on blossoms. In one instance, two flies occupied the same blossom, with one on the front of the banner, and the other on the venter of the keel, so that they apparently could not see each other. The aggregations, which formed by mid-morning and dispersed at twilight, continued until all flower clusters had finished blooming. Mid-instar lepidopteran larvae, which had fallen or dropped from the overhanging canopy of *Quercus douglasii* W.J. Hooker & G.A. Walker-Arnott, and which occasionally crawled across occupied blossoms, did not elicit a reaction from the flies.

*Thaumatomyia glabra* is considered an "almost cosmopolitan" chloropid species with a vast array of geographically variable phena (Sabrosky, C.W. 1943. *Canad. Entomol.*, 75: 109-117). Therefore, we assume that *T. glabra* either represents an adaptively polytypic species, or a group of sibling species. Sabrosky's (1943: 114) description of a phena for "western and far western states," which has rather distinct mesonotal setae and yellow fore metatarsi, most closely matches the flies that we observed; his description of certain California populations that have reduced cheeks does not match.

Because *Wisteria sinensis* is of oriental origin, and these *T. glabra* have a western Nearctic phena, it seems implausible that this behavioral association could pre-date the introduction of *Wisteria* to the area. *Thaumatomyia* are predators of root aphids [*Pemphigus* sp.] (Alleyne, E. & F. Morrison. 1977. *Ann. Soc. Entomol. Que.*, 22: 181-187; Roman, E. & C. Chauve. 1979. *Bull. Mens Soc. Linn. Lyon*, 48: 263-267), but there is a record of *T. glabra* from a spider egg sac (Sabrosky 1943). Because we did not observe interaction among the sitting flies on *Wisteria*, it is difficult to speculate about the evolutionary benefit of this behavior, except to mention that it seemed to resemble an apparent form of lekking in the absence of observed interaction. It may involve an anticipation of mates drawn to the fragrant blossoms as a resource. Vouchers are deposited at the PPDC, CDFA, Sacramento.

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*Material Examined.*—CALIFORNIA. EL DORADO Co.: El Dorado Hills, 4–18 Apr 1995, K.H. Sorensen, ex *Wisteria sinensis* blossoms.

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